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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. |
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097354,464

07/15/99

WATANABE

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EXAMINER

HON, S

ART UNIT

PAPER NUMBER

1772

DATE MAILED:

07/18/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trad marks

# Office Action Summary

Application No.

09/354,464

Applicant(s)

WATANABE ET AL.

Examiner

Sow-Fun Hon

Art Unit

1772

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 30 April 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-144 is/are pending in the application.
- 4a) Of the above claim(s) 1-23 and 100-144 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 24-99 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-23 and 100-144 are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Amendment***

1. The 35 U.S.C. 112, 2<sup>nd</sup> paragraph rejections in Paper # 6, paragraphs 6-8 (mailed 02/12/01) of claims 24-99 has been withdrawn due to Applicant's amendment and clarification in Paper # 7 (filed 04/30/01).
2. The 35 U.S.C. 102(b) rejection in Paper # 6, paragraph 10 (mailed 02/12/01) of claims 24-99 as being anticipated by Iioka et al. has been withdrawn due to Applicant's amendment and clarification in Paper # 7 (filed 04/30/01).

### ***New Rejections***

#### ***Claim Rejections - 35 USC § 112***

3. Claims 24-99 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claim limitations of "high m.p" and "low m.p" are not given any patentable weight when not defined by finite numbers.

#### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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4. Claims 24-99 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iioka et al. in view of Herman et al. (Encyclopedia of Polymer Science & Technology, vol. 6). Iioka et al. has been discussed in Paper # 6, paragraph 10 (mailed 02/12/01) and is rediscussed here for Applicant's convenience.

Iioka et al. have a heat-insulating paper container which has a thick foamed heat-insulating layer in the area of the outer surface of the body member which has been provided with printing of an organic solvent based ink whereas a less thick foamed heat-insulating layer is formed in the non-printed area of said outer surface. It would have been obvious to one of ordinary skill in the art to have printed the ink on top of the foam insulated area as a variation of the design of Iioka et al. since printing on top of the foamed insulation is well known in the art. The ink to be used in printing is of such a type that very small amounts of solvent components remain in the printed surface to accelerate film foaming (column 4, lines 17-29) and to allow for the expansion of the ink along with the expansion of the film. The paper sheet to be used in producing the heat-insulated container has preferably a basis weight in the range from 100 g/m<sup>2</sup> to 400 g/m<sup>2</sup>. It is also preferred that the paper sheet has a water content within the range for about 3 % to about 10 % (column 6, lines 34-38). Iioka et al. teach that the film on the outer surface must be a low-density polyethylene (LDPE) and the film on the inner surface must be a medium density polyethylene (MDPE) (column 6, lines 13-16). The thickness of the low density polyethylene is taught to be 25 to 60 microns (0.06 mm) (column 6, lines 20-25). Iioka et al. fail to disclose the melting points of the polyethylenes.

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Herman et al. disclose that the melting temperature of LDPE is in the range of 102 to 112 °C, and that that of MDPE is 110 to 120 °C, along with other physical properties (Table 7, page 413).

It would have been mere routine optimization for one of ordinary skill in the art to have used the physical properties of the LDPE and MDPE as disclosed by Herman et al. in the invention of Iioka et al. in order to obtain a surface with the desired physical properties for the printing of the foamable (expansile) ink.

*Response to Arguments*


5. Applicant's arguments with respect to claims 24-99 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication should be directed to Sow-Fun Hon whose telephone number is (703)308-3265. The examiner can normally be reached Monday to Friday from 9:00 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon, can be reached on (703)308-4251. The fax phone number for the organization where this application or proceeding is assigned is (703)305-3599.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0661.

SH  
07/12/07

  
HAROLD PYON  
SUPERVISORY PATENT EXAMINER  
1772

7/16/07